

UNITED STATES DEPARTMENT OF
COMMERCE

**ENTERPRISE INFORMATION
TECHNOLOGY ARCHITECTURE PLAN**

**for the
Office of the Secretary**

March 9, 2000

Introduction

- Architecture Plan for the Office of the Secretary.
- Meets the requirements of the Clinger-Cohen Act of 1996
- Starting point for Digital Department for Administrative Systems

Architecture Vision

- Deploy all administrative functions using Web enabled applications on a secure Intranet.
- Integrate systems to the extent that sharing of common data items is possible.
- Employ encryption and digital signature tools to validate authenticity of transactions.

Architecture Principles

- Architecture Principles are statements of preferred direction or practice.
- They are used to develop a framework in which IT planning and development are carried out.
- They are intended to guide in developing a sustainable, cost effective, flexible and maintainable environment.

Scope of Plan

- Covers all administrative systems deployed by the Office of the Secretary.
- Plan also covers network infrastructure, communications, and security.
- It does not address business functions with external customers or other branches of government.

Specific Application Areas Included

- Core Financial System
- Human Resources
- Large Procurement
- Small Purchases
- Time and Attendance
- Asset Tracking
- Document Management
- Travel
- Contract Management
- Budgeting and Planning
- Employee Training
- Employee Information
- Help Desk
- DoC Forms

Infrastructure Components Included

- Secure Intranet
- Directory Services
- Electronic Messaging
- Digital Encryption/Digital Signature
- Data Dictionary
- Workflow Services

Current State of Systems

- Each system is an island of information.
- Most functions are paper based to some extent.
- In most cases the user must track down forms and information on how to use them.
- Paper forms must be routed from person to person for completion.
- Ad-hoc reports are difficult or impossible based on the system architecture.

Target Architecture

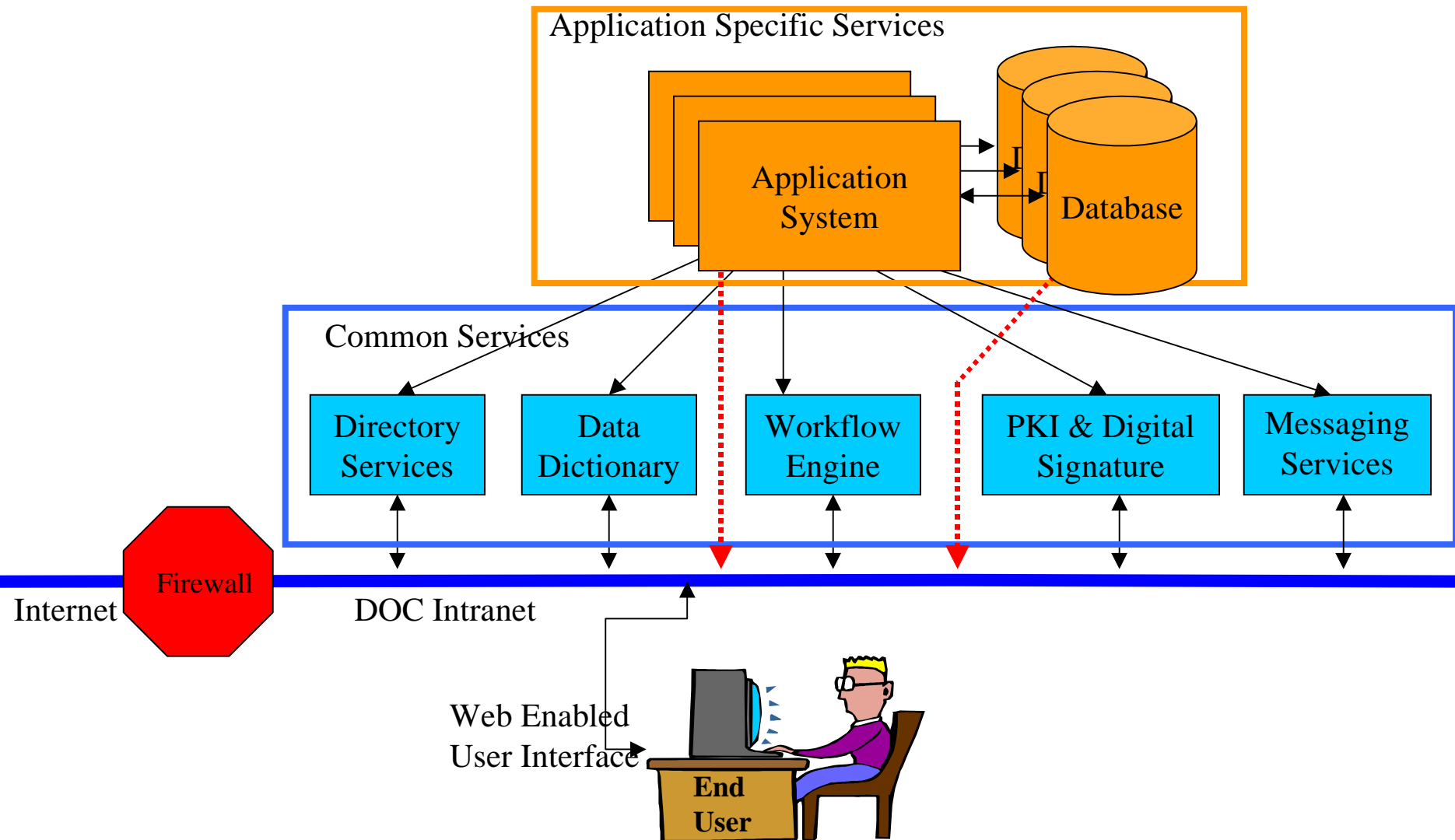
- All applications will be integrated to share data and tasks which are common to all.
- All systems will employ Web based interfaces
- All applications will be available through a single entry point.
- A single automated workflow system will control routing of all transactions.
- Management information will be available ad-hoc and accessible in a timely manner.

Target Architecture continued...

By separating common services from application specific services it is possible to:

- Simplify the development process by using existing components.
- Deploy applications rapidly by adding on to the existing framework.
- Increase integration by use of common components, and reduce redundant information.
- Provide a consistent methodology across all applications.

OSEC Target Architecture Model



Target Architecture continued...

Each application plugs into the existing infrastructure, and is required to provide only those services and features which are specific to the task to be automated.

As long as the standards are applied, each application can be built using different vendors software without disruption of the architecture.

How do we get there?

- Establish a technical reference model.
- Develop a standards profile for all hardware, software and telecom components.
- Define standard interfaces for each system to send and receive data.
- Work with operational managers to streamline then automate workflow.

Gap Analysis Continued...

- Procure and/or construct Common Services
 - Directory Services ★
 - MetaData Repository
 - Automated Workflow
 - Encryption and Signature Services ★
 - Secure Intranet Network ★

★ Already underway

Gap Analysis Continued...

- Deploy interoperable messaging system.
- Establish tight configuration management practices.
- Develop end-user training courses.
- Define roles and responsibility for support and maintenance.
- Procure applications that comply with the technical reference model and standards.

Observations

- Prior to purchasing or building ANY applications, a review of the work process should be completed.
- This plan is neutral on “thin client” vs “thick client”, will work either way or with a mix.